



March 1, 2012

Office of Enforcement and Compliance Assurance
Office of Federal Activities
International Compliance Assurance Division (2254 A)
Environmental Protection Agency
1200 Pennsylvania Ave., NW
Washington, DC 20460

7010 1870 0001 7512 0477

Re: 2011 Export Annual Report
Diamond Shamrock Refining Co., L.P.- Valero Three Rivers Refinery
Industrial Solid Waste Registration No. 31553
Hazardous Waste Permit No. 50100
EPA ID No. TXD990709966
Regulated No. RN 100542802
Customer No. CN 600124861

Dear Administrator,

Diamond Shamrock Refining Co., L.P. is submitting this Annual Report for the 2011 calendar year for hazardous waste that was exported to foreign countries for metals reclamation from our Three Rivers Refinery.

This report has been prepared in accordance with the requirements of 40 CFR 262.56.

(a)(1) The EPA identification number, name, and mailing and site address of the exporter:
TXD990709966, Diamond Shamrock Refining Co., L.P., Valero Three Rivers Refinery, PO Box 490, 301 Leroy St., Three Rivers, TX 78071

(a)(2) The calendar year covered by the report: 2011

(a)(3) The name and site address of each consignee:
Hong Jing Resource Co., Ltd., #13-2, Wonbuk-Ri, Gunbuk-Myon, Haman-Gun, Kyeong-Nam, South Korea 637823

(a)(4) By consignee, for each hazardous waste exported, a description of the hazardous waste, the EPA hazardous waste number (from 40 CFR part 261, subpart C or D), DOT hazard class, the name and US EPA ID number (where applicable) for each transporter used, the total amount of waste shipped and number of shipments pursuant to each notification:

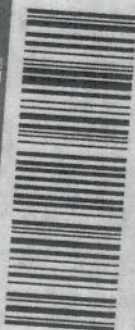
received
SDN 311212

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US POST
FIRST CLASS
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PLACE STICKER AT TOP OF ENVELOPE TO THE RIGHT
OF THE RETURN ADDRESS AND THE DOTTED LINE

CERTIFIED MAIL



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Route **EPA Mail**

To: Enforcement and Com

Mailstop: ARIEL RIOS NORTH

Department: 2254A

Phone:

PKG Condition Certified



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VALERO
THREE RIVERS REFINERY

Post Office Box 490 • Three Rivers, Texas 78071

Office of Enforcement and Compliance Assurance
Office of Federal Activities

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Hong Jing Resource Co., Ltd. South Korea, DHT Hydrotreating Catalyst, K171, DOT Hazard Class 4.2, transporter Jetco Delivery (EPA ID# TXR000077976), 114.18 tons, 8 shipments

Hong Jing Resource Co., Ltd. South Korea, #1 HDU Hydrotreating Catalyst, K171, DOT Hazard Class 4.2, transporter Jetco Delivery (EPA ID# TXR000077976), 26.99 tons, 2 shipments

(a)(5) Except for hazardous waste produced by exporters of greater than 100 kg but less than 1000 kg in a calendar month, unless provided pursuant to §262.41, in even numbered years:

(i) A description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated; and

The Source Reduction/Waste Minimization (SR/WM) Options and Implementation as found in our SR/WM Plan includes a description of the efforts undertaken to reduce the volume and toxicity of waste generated and can be found in Attachment I.

(ii) A description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent such information is available for years prior to 1984:

A comparison of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years as related to the Options listed above can be found in Attachment II. As required by the SR/WM plan and associated reporting requirements, the annual progress report on source reduction and waste minimization activities will be submitted by July 1, 2012 to the Texas Commission on Environmental Quality, and will be available upon request.

(a)(6) A certification signed by the primary exporter: see Attachment III.

Should you have any questions or require additional information, please call me at (361) 786-8330 or via e-mail at kathy.garcia@valero.com.

Sincerely,



Kathy Garcia
Sr. Environmental Engineer

Attachments

cc: TCEQ Region 14

7010 1870 0001 7512 0484

ATTACHMENT I

SOURCE REDUCTION/WASTE MINIMIZATION PLAN OPTIONS AND IMPLEMENTATION

VALERO THREE RIVERS REFINERY

Source Reduction/Waste Minimization Options

Option 1- Good Operating Practices

Briefly describe the option:

Evaluate metals reclamation facilities to recycle spent hydrotreating catalysts. The #2 HDU Catalyst was sent to Gulf Chemical for reclamation in 2010. #1 HDU and DHT catalysts were sent to Hong Jing for reclamation in 2011. The POT Catalyst is planned to be reclaimed in 2012. Evaluate other hydrotreating catalysts as they are changed out in the future.

Waste stream affected: Spent Hydrotreating Catalyst

Input material affected: Catalyst

Products affected: none

Estimated waste reduction: #2 HDU (44.81 tons) (Total of 44.81 tons HW for 2010). #1 HDU (26.99 tons) and DHT (114.18 tons) (Total of 141.17 tons HW for 2011). POT (38.42 tons) (Total of 38.427 tons HW for 2012)

Type reduction: Recycle/reuse

Option 2- Process and Equipment Modification

Briefly describe the option:

Evaluate catalyst to attempt to delay change out. The waste summary annualized catalyst over the expected life of the catalyst (example 3 yr. life of 27,000 lbs of catalyst is 9000 lbs/yr). If the life of the catalyst is extended, this will reduce the total amount generated over the life of this plan. This is a process of data evaluation on equipment utilization, the quality of feed stocks, and is constantly reviewed by market analysis and technology changes as well as government regulations. This evaluation is a by-product of maximizing the refinery efficiency and results in no additional expenditure, but will have a positive affect on cost over time by reducing total waste generated.

Waste stream affected: Catalyst in both east and west plants.

Input material affected: Catalyst

Products affected: potential quantity or quality

Estimated waste reduction:

Type reduction: Source reduction

Option 3- Spill and Leak Prevention

Briefly describe the option:

Spill prevention can be improved through the proper training, maintenance and operation of personnel and equipment. Review goals for spills, communication and monitoring as well as continual feed back to all refinery personnel. Perform tank and equipment inspection including structural integrity, pipe and valve integrity, and instrumentation operation and calibration as required. Goals and training are currently in place and this can be addressed with no cost. Tank and equipment issues are being addressed through compliance with recent government imposed safety inspections and an internally enhanced Taproot Root Cause Analysis incident review and mitigation procedure. The affect on cost is to reduce the transportation and disposal expenses.

Waste stream affected: Spill cleanup and TRI.

Input material affected: None

Products affected: None

Estimated waste reduction: This reduction is based on one large spill event over a 5-year period (based on the TK-43 spill of about 292 tons in 2010). Estimated reduction is 5.8 tons per year (10% reduction of an average 58 tons per year). TRI should see a proportionate reduction.

Type reduction: Source reduction

Option 4- Spill and Leak Prevention

Briefly describe the option:

Fourteen pumps were retrofitted in 2010 for a reduction of 1.366 tons/year. Five pumps and four various compressor seal vents were retrofitted and complete in 2011 for an additional reduction of 4.232 tons/year. Nine pumps and seven various compressor seal vents are scheduled to be retrofitted and complete in 2012 for an additional reduction of 2.00 tons/year. Continue to evaluate additional seals for upgrade opportunities.

Waste stream affected: Fugitive emissions

Input material affected: none

Products affected: none

Estimated waste reduction: 1.366 tons/year (2010), 5.598 tons/yr (2011), 7.598 tons/yr (2012) of cumulative VOC fugitive emissions

Type reduction: Source Reduction

Option 5- Good Operating Practices

Briefly describe the option:

TK-31 slurry tank was taken out of service in 2011 for its 10-yr inspection. There was an estimated 2150 bbls of tank bottoms based on 12.5 feet of solids (8 lbs/gal). A centrifuge was brought onsite for hazardous waste processing and reduction. The cutter stock along with the heavy paraffins were recovered at elevated temperatures. About 250 tons of centrifuge cake were sent to a thermal desorption unit at US Ecology.

Waste stream affected: Dewatered sludge

Input material affected: none

Products affected: none

Estimated waste reduction: Reduced slurry tank bottoms by about 30% for a reduction of 111.31 tons of hazardous waste in 2011.

Type reduction: Source Reduction

Option 6- Process and Equipment Modification

Briefly describe the option:

Irrigation charge water is being evaluated to be recycled for oil field use. The total amount of water expected to be recycled is estimated at 300,000 bbls/mo, and is still under evaluation. This amounts to a reduction of 0.417 tons of VOC emissions per month.

Waste stream affected: Irrigation Water

Input material affected: none

Products affected: none

Estimated waste reduction: Six months of recycled irrigation water for 2.503 tons of VOC emissions reported for 2011, and a full year of recycled water for 5.006 tons of VOC emissions/year thereafter.

Type reduction: Recycle/reuse

Option 7- Spill and Leak Prevention

Briefly describe the option:

Recover flare gas from all flares to decrease emissions, expected to be complete the end of 2011. Total VOC emissions are expected to be reduced by 67.2 TPY.

Waste stream affected: Flare source emissions

Input material affected: none

Products affected: none

Estimated waste reduction: Total reduction is 67.2 TPY of VOC emissions starting in 2012.

Type reduction: Source Reduction

Option 8- Process and Equipment Modification

Briefly describe the option:

The Energy Stewardship Program has resulted in various energy savings throughout the refinery. The reduced fuel gas usage has resulted in an emission savings for the chemicals of lead and mercury. The energy savings projects have reduced a total of 0.00045 tons of point source emissions for 2010 and an additional 0.0001 tons in 2011. Continue to evaluate projects for energy savings throughout the refinery.

Waste stream affected: Point source emissions

Input material affected: none

Products affected: none

Estimated waste reduction: 0.00045 tons/yr of point source emissions for lead and mercury (2010), 0.00055 tons/yr (2011) of cumulative VOC fugitive emissions.

Type reduction: Source Reduction

Option 9- Good Operating Practices

Briefly describe the option:

All irrigation water is being looked at for a wastewater reuse project. This wastewater is being evaluated to be put into a RO system, where 50% of the outlet would be used as boiler feed water in place of Kitty Water, and 50% would be put through the UIC well. This project is being evaluated due to the City of Three Rivers possibly reducing our non-potable water supply. The total tons of wastewater recycled is estimated at 300 gpm (9% evaporation rate to air and the remainder as applied to water if discharging to river) for a total of 656,737 tons/year.

Waste stream affected: Wastewater

Input material affected: water purchased from outside sources

Products affected: none

Estimated waste reduction: 656,737 tons of wastewater for 12.737 tons of VOC emissions reported waste/year.

Type reduction: Recycle/reuse

Option 10

Briefly describe the option:

EPLT boiler blowdowns and stripper sour water are being routed to wastewater. A portion of these streams are now being routed to the new flare gas recovery compressors (10 gpm) and as seal drum makeup water (12 gpm). The total tons of wastewater being recycled is estimated at 22 gpm (9% evaporation rate to air and the remainder as applied to water) for a total of 48,161 tons per year.

Waste stream affected: Wastewater

Input material affected: water purchased from outside sources

Products affected: none

Estimated waste reduction: 48,161 tons of wastewater for 0.934 tons of VOC emissions reported waste/year.

Type reduction: Recycle/reuse

Option 11- Good Operating Practices

Briefly describe the option:

The wastewater and slop oil tanks were evaluated to be centrifuged to reduce the amount of solids in the tank. The Valero coker facility (Port Arthur) is currently accepting TK-6,8 material centrifuged in 2011/2012 as secondary oil-bearing materials for an estimated total hazardous waste reduction of 450 tons. Boxes were shipped debris free and without liners. The slop oil TK-310 was also centrifuged, but only yielded about 10 tons of secondary oil bearing material that was sent to the same coker facility listed above.

Waste stream affected: Dewatered sludge

Input material affected: none

Products affected: none

Estimated waste reduction: Reclaimed WWT and Slop Oil centrifuge solids for a reduction of 460 tons of hazardous waste in 2012.

Type reduction: Recycle/reuse

ATTACHMENT II

SUMMARY OF IMPLEMENTATION MILESTONES ACTUALLY ACHIEVED

VALERO THREE RIVERS REFINERY

SUMMARY OF IMPLEMENTATION MILESTONES

Assume 5% of VOCs are reported as TRI chemicals

BASE YEAR : 2009 GOAL YEAR: 2014

OPTIONS

<u>2010 Goals</u>	<u>tons VOCs</u>	<u>tons HW</u>	<u>Pt Source Chemicals</u>	
1		44.81		Good Operating Practices
4	1.366			Spill & Leak Prevention
8			0.00045 Pb & Hg	Process Modifications
TOTAL TRI REDUCED =			0.06875 tons	
TOTAL HW REDUCED =			44.81 tons	
<u>2011 Goals</u>	<u>tons VOCs</u>	<u>tons HW</u>	<u>Pt Source Chemicals</u>	
1		141.17		Good Operating Practices
4	5.598			Spill & Leak Prevention
5		111.31		Good Operating Practices
8			0.00055 Pb & Hg	Process Modifications
TOTAL TRI REDUCED =			0.28045 tons	
TOTAL HW REDUCED =			252.48 tons	
<u>2012 Goals</u>	<u>tons VOCs</u>	<u>tons HW</u>	<u>Pt Source Chemicals</u>	
1		38.42		Good Operating Practices
4	7.598			Spill & Leak Prevention
7	67.2			Spill & Leak Prevention
8			0.00055 Pb & Hg	Process Modifications
10	0.934			Raw Material Modifications
11		460		Good Operating Practices
TOTAL TRI REDUCED =			3.78715 tons	
TOTAL HW REDUCED =			498.42 tons	
<u>2013 Goals</u>	<u>tons VOCs</u>	<u>tons HW</u>	<u>Pt Source Chemicals</u>	
1				Good Operating Practices
4	7.598			Spill & Leak Prevention
7	67.2			Spill & Leak Prevention
8			0.00055 Pb & Hg	Process Modifications
10	0.934			Raw Material Modifications
TOTAL TRI REDUCED =			3.78715 tons	
TOTAL HW REDUCED =			0 tons	
<u>2014 Goals</u>	<u>tons VOCs</u>	<u>tons HW</u>	<u>Pt Source Chemicals</u>	
1				Good Operating Practices
4	7.598			Spill & Leak Prevention
7	67.2			Spill & Leak Prevention
8			0.00055 Pb & Hg	Process Modifications
10	0.934			Raw Material Modifications
TOTAL TRI REDUCED =			3.78715 tons	
TOTAL HW REDUCED =			0 tons	

<u>2011 REDUCTION ACHIEVEMENT</u>	<u>HW (tons)</u>	<u>TRI (tons)</u>	PART 3
Good Operating Practices	252.5	0.00000	
Inventory Control	0.0	0.00000	
Spill & Leak Prevention	0.0	0.27990	
Raw Material Modifications	0.0	0.00000	
Process Modifications	0.0	0.00055	
Cleaning and Degreasing	0.0	0.00000	
Surface Preparation and Finishing	0.0	0.00000	
Product Modification	0.0	0.00000	

<u>PROJECTED AMTS FOR GOAL YEAR</u>	<u>HW (tons)</u>	<u>TRI (tons)</u>	PART 2
	1532.241	66.473	
	795.710	11.711	
	0.000	5.390	

BASE YEAR (2009) in tons: 1532.241 70.26


ATTACHMENT III

PRIMARY EXPORTER CERTIFICATION

Certification by Primary Exporter

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.


Jon Kiggans, HS&E Director


Date